

March 25, 1975

who? clark

A little while with Elizabeth Friedman

Clark wants to know everything--he says we have to have a blanket knowledge of everything and you work from that. ~~-You-unify,-you-simplify-and-you-work~~ You separate, you unify and you do this and you do that. Well, is this for a book for yourself--no, reminiscences, for my contribution to my husband's biography. Should it start right back where you--it doesn't have to have any order--where you were born--no, nothing personal about me--I'm not the character about whom the biography is being written. But I should think that sort of thing would be important, though, after all. This was so interesting as you were telling the girls about how you met your husband, how you went from school and this was your first position and how you happened to get this position. Well, that's a good story ~~in that~~ and the fact that it was there that I met my husband. What was the name? Fayyan. I never heard that name. I just don't know what's become of that Fabyan family. I've never heard of any of them since his death. And that was in Wisconsin? He grew up, after he ran away from home but his family was the Boston blue-blood Fayan family that was the Fayyan cotton good Corp., the largest cotton good corporation in the world at that time. And he had a brother who was quite an intellectual. I've forgotten now what he did. His immediate family was quite small and they had disinherited him as he had run away from home. How old was he then. About 15 and he grew up in the lumber business up north from Chicago, running the lumber down to the docks from Northern Wisc. down thru the great lakes and then when he was 19 he decided he'd had enuf of that or I wouldn't say he decided that, but, at any rate, he went to the St Louis Mgr. of the Fabyan Corp. and applied for a job. He was very eager to hire him but the young boy, after all he was only 19, made this man promise that he would never reveal who he was. He had to be known as Mr. X as far as correspondence with the parent firm in Boston was concerned. He went on like that ~~X/X/X~~ for a couple years and he was whiz bang of a salesman! And that is when he decided to make a fortune? But how did he make his millions? Well, he inherited 3 million. His father, a couple of years after they were reconciled (this was in our very early years at Riverbank that that happened and he was not only reinstated in the family but he was made Mgr. of the Chicago Office which a very large share of the business. At any rate, George Fabyan was taken back into the family graces and-- How old was he then? Oh, just a kid, 21, 23. I think he was only 23 when his father died and he inherited--Mind you, this was way back in 1910, 1912, something like that and he inherited 3 million dollars! That's not so much now a days but in those days you never heard of it. And so he decided, I guess, that he wanted to be a grand--what's the word for a man--we say a grande dame-- anyway he could put on airs, you know. Is that why he was sort of eccentric? He was very eccentric in his dressing. Out there, at the estate, he was invariably dressed in puttees, riding trousers, riding Prince Albert coat and riding hat. Did he go in for colors? I mean, you can go in for that sort of thing and it can be sort of a dull-looking outfit but it can also be very good looking. He was kind of loud. The coat usually had some figures, not just a plain one. Plaid? Yah, not a real loud plaid a check or something like that. colors

There was a big place outside the villa which was their house on the main part of the grounds and say overhere was Mrs. Fabyan's zoo--she was crazy about animals, she grew race horses, purebreds, she travelled around all the time with a veterinarian with her horses, to shows, to win prizes.

With a chuckle--he had even to view with her on that. He acquired a bull, a prize bull which won a fabulous prize, something out of this world, I can't think of the name of it, a very glorified thing and he, one of his prides was that he developed people of talent, and so one of these girls that he had developed as a sculptor sculpted that bull and its in the Chicago Art Museum. Its still there as far as I know, certainly was back in those days. Everybody knew the bull by its name "Blue something or other" and he was the kind of man who could listen to someboy, supposing you take Wallace Sagen of Harvard, the professor who developed so many things to do with sound in public buildings, etc. and he would talk to you after Sagen was gone, say after two days, and if you didn't know that Sagen had been there, you ~~yes~~ would think Sagen was talking. He had an absolutely photographic, verbatim memory. And he could do it with anybody, with anything, physica, or literature, or anything else.

Riverbank was where? Outside of Chicago, 25 miles southwest of Chicago along the Chicago Southwestern RR. And the Lincoln Highway ran thru the estate. The estate was 300 acres in three strips of land. Here was this strip and this was the Lincoln Highway. There was another strip and here was the villa--their house and all the things that had to do with that--the cars, the chauffers, , a house for the maids, the servants --I can't tell you how many servants they had. because even then, servants were getting scarce. Very few families had a lot of servants They had a lot of them there. Then there was the Fox River and ~~along~~ that side there was a Dutch Windmill that he had had taken down piece by piece and shipped over here and put up on his estate. Why? The idea just fascinated him.

I was going to tell you about this place outside the villa. Of course all the grounds unless they had been mowed down or had trees, you know, well tended lawns and a lot of trees. He had this gathering outside the villa that had a fireplace--if you put these two rugs together it ~~was~~ ^{would} be about that size, it was ~~something~~ sunk in the ground and it took 5 and 6 feet logs and as a background to that that there was a giant spider web made out of this thick, thick rope that they use on boats. It was 60 feet high and Billy Burke, he cultivated that, I even saw Lily Langtry I met Lilyan I sat as close to her as I'm sitting to you. She was the mistress of King Edward--a great, great beauty and he was going to educate her on this. Apparently these people enjoyed him. I'd forgotten so much of this. When I've straightening up all these papers I ran across photographs, there was a picture of this spider web thing, of course I don't where I put them now. What was the spider web thing for. Oh, it was just because he fancied a spider web for a background that was woven of ropes that were used by sailors on ships as decoration and circled there were this fireplace and chairs and things all around. There was wicker arm chair like you see on a porch--a big one because he was a big man--was he tall--pretty tall I used to feel real tiny, you know, I hardly came to his shoulder and anyway he'd sit there in that chair with a hat on his head, his riding hat, in riding clothes and he'd swing back and forth. If he wanted to ball somebody out about something he would send for them and he'd stand you up there in front of him and he'd give you hell. We called that the hell chair. It was known far and wide--the people down in the village and everywhere. He, like lots of rich men, had and all the furniture except the dining room table and chairs were swung from the ceiling. X He must have been a real character. He was. He was a real character. I don't think I'll ever forget. ~~This young woman~~ I'm so sorry nobody ever wrote a biography on him. This young woman who came to see us about him had decided to write one but I don't know whatever happened to her. Was she from Boston. I don't think she was from Boston but her husband was doing something at Riverbank. He had to have been some kind of a scientist.

Mrs. Ballup in the Bio-Cipher was no longer in favor, the only thing that was there was science. There was a laboratory, one for physics and one for chemistry. He built the 2nd sound laboratory in the United States. There was one at Harvard, under the direction of Wallace Sabin and this is one thing that should go down in posterity for in encyclopedias, they perfected safonite, which is this material on the wall of . Are you sure he wasn't in "Who's who" or anything like that. Never, never. Isn't that a crime. I just think its the funniest thing, of course, he would poo poo and make fun of it but I think he would have been pleased. The engineering laboratory is still functioning at Riverbank. When Mrs. Fabian died she left the estate to the State of Illinois except for the engineering laboratory, the bldg. that housed the engineering laboratory and the ground around that. I don't know how much ground that was, probably no more than an acre, but nevertheless that's still there and still independent. And they perfected something out of a tuning fork I never understood it but the only thing I can say is that they started with a tuning fork. It was something that the ordinance department of the govt. forces used during World War I, and it turned out to be very valuable. In the ordinance world it was very useful.

How old were you when you first met him--you were just out of college, weren't you? I had just graduated, I must have been about 21. I graduated from Hillsdale College. I went to a college in Ohio for two years and then transferred to Hillsdale. My mother was ill, you see my mother died of cancer, Is Hillsdale in--its right over the border in Michigan, and Huntingdon, Ind., our little town, where the family periferated, was in that corner near Fort Wayne is in this kinda northeast corner and Hillsdale, Michigan is just a little from that. It was less than a hundred miles from my home. What kind of a degree did you have. It was a B.A. Was it in Chicago that you went looking for a job? Yes, a job. It was some woman that you spoke to about it, wasn't it? The librarian at the Newberry Ref. Library on the north side of Chicago --a private library and they had a Shakespeare folio there. That was long before the Folger Library. I think that Shakespeare folio was the only one in this country at that time. I was trying to get a line on the kind of position I wanted. I was looking into this and that trying to decided what I wanted to do. I didn't think I wanted to teach. I thought I wanted to do something that would utilize what skills I'd learned in college. I really thought of research work. I thought of myself as sitting down at a desk or two or three desks in front of me and working away at research or something like that. Well, actually, of course, after World War I I did end up in doing exactly that. Now, she thought she knew someboy who was looking for an assistant. Yah. Yes, He wanted to prove that Bacon wrote Shakespeare. He was sold on Mrs. Gallup. The Bacontonians, both here and abroad. He had met Mrs. Gallup through very wealthy people in Boston who were sold on the Bacon-Shakespeare authorship, I guess. It was Mr. and Mrs. Samuel Prescott. ~~xxxx~~ They had gone over to England and spent a lot of money, two or three years, going into this matter. They were friends of Mrs. Gallup. Did I give you one of these books--The Shakespearean Ciphers Examined? Do you remember the picture of Mrs. Gallup? This newspaper was discovered in castle and it had these pages--you can see where the names of William Shakespeare and Francis Bacon are both in here, backwards and forwards, again and again and Mrs. Gallups ceased upn the two names being in there. Wealthy people from Boston, although she came from Detroit. (Came across the picture of the hell chair). There were a lot of wealthy people in Boston who fell for that and there were men, their names are in here, These people were not interested financially, only in the theory, weren't they. Oh yes, it didn't bring them any reward, The reward would be the great honor of discovering the real author of Shakespeare. It's always puzzled me why can't they let Shakespeare write Shakespeare--what's wrong with that? I've never

understood that! Why in the world they had to dig this up, and its not only in the English speaking world, you know, there are a lot of books written by Dutchmen, by Frenchmen, by Germans. (Invitation Nov. 5, 1958 in book) Reception given by Cambridge University Press and Sydney Kramer, who has a shop up on H Street, His wife and son still run it. Introduction of "The Shakespearean Ciphers Examined".

Well, getting back to the time when this woman said she thought she knew --did she call him up and did he say he'd be over? Yah. He couldn't have been very far away. Well, he didn't have to be very close if he had a limousine with a chauffeur, going out N. Michigan Avenue. And then what knocked my teeth out was that in Geneva, there was a different limousine and a different chauffeur. Did he ask you right there what you wanted? He said, "Will you go to Riverbank and spend the night with me.?" I said, "I don't have anything with me, I'm not prepared to go anywhere to spend the night." He said, "Well, never mind that--we can fix that up." And so he kind of swept me up under his arm. You didn't have any idea what kind of work it was going to be? Oh yes, yah, because he'd been there, he'd been very envious of that library's Shakespeare folio because he wanted possession of things...anything or heard about or was different or unique he wanted it. He pretended to be going to the library to be looking at the folio but he had no ~~academic~~ education to permit to enjoy any of the joys that a scholar would see in the Shakespeare folio so it was just a matter of ceasing on this thing that Mrs. Gallup's work had not been disproved. Therefore, it must be right. He, George Fabyan, was the man who had the money and the wherewithall to see that it was put over. for the public. He paid the expenses of the most renowned college professors in this country.

R Clark to see only copy?

4/1/75 Elizabeth S. Friedman speaking about William F. Friedman and his work.

One of the people I met the first evening I spent at dinner at Riverbank was engaged in several different activities and almost everything that was done on the estate in the next year or two, ^{William F. Friedman.} / He had come to Riverbank having been hired by George Fabyan from his post where he was doing graduate work at Cornell University. His work had been genetics and he was working with corn, growing corn, and various things like fruit flies, developing laws of heredity and all growing things, George Fabyan was looking for a geneticist--he called it an expert in heredity, to come to Riverbank to conduct experiments with such things as planting oats in the light of the moon and working with fruit flies and that kind of thing. Fabyan found William Friedman so useful because he was a wonderful photographer and could do anything with a camera that he was requested to do and so Fabyan consequently just made him enter into everything that went on there.

There's an amusing story about Fabyan writing to Cornell prior to Fabyan hiring Friedman. Fabyan wrote to Cornell and said he wanted a graduate student and he wanted an "as iser" and not a "has beener."

So they got together by correspondence and terms were met. Fabyan, of course, would always bargain, no matter what it was--a human life, over a piece of material of some kind. It was just in his nature to bargain.

I remember that Mr. William Friedman from meeting him the first evening I was at Riverbank and all the people--Mrs. Gallup and her sister Miss Wells and the engineering head, i.e., head of the engineering laboratory, a Mr. Eisenhauer. At that time we were fed, whether or not we stayed in that house, at this particular house. Fabyan always hired expert Swedish or Danish cooks and we had three big meals a day and everything was done for us. We had fruit and ice water and some little extra at our bed side when we went to bed. There were a great many features of luxury with the life there but there was also a good deal of the feeling that we couldn't go in any direction we wanted to. Whatever we did we were expected to come to a conclusion, somewhere along the line, that would be beneficial to whatever George Fabyan wanted. That was the kind of thing he wanted out of his workers there. The other day I came across a photograph that showed the people who were there--Mrs. Gallup and her sister and the man who had been the head of the Univ. of Chicago Press, J. A. Puel, the girls, i.e., translators. That brings me to say that it sounds unbelievable but it's absolutely true that for the first eight months of World War I we did all the ciphering for all the Departments of the U.S. Government out at Riverbank.

4/1/75 Friedman

The material was telegraphed out there and we would solve it and send it back, many times within 24 hours. (Were you working with William Friedman at that time?) I was. Yes, because the war suddenly burst upon everybody and Fabyan prophesied it. He had, you know, one of these long heads and he seemed to look into the future and could foretell things. He seemed to know months and months before we were into the war that we were going to get into the war. He kept coming down to Washington to talk with the higher-ups here, there and everywhere. He persuaded them that they didn't have any cipher bureau, they didn't have anybody who knew anything about ciphers and that was true. At the beginning of World War I there were only two Army officers, of any service, State Dept., Navy, Army, Post Office, the whole string of them. They all sent whatever came in in secret form, presumably cipher, to Riverbank. Consequently we had to translate it.

(How long before the war began that you had been working on ciphers? You said that William Friedman had been in genetics--that's what he'd been hired for). I went to Riverbank in June of 1916 and lo^u and behold, by 1917 we were in a war. No office, no single person knew anything about codes and ciphers and the solution of systems with the exception of two Army officers Parker Hitt, Colonel Parker Hitt, and Major Joseph Maubourgne. Maubourgne was responsible for getting the Army interested in ciphers. Radio was new and that meant that a lot of things were going to be going through the air and, of course, the authorities and other governments as well as the U.S. government would have to have something that was safe to go through the air, that other people wouldn't know what we were talking about because it would be in the form of cipher. Every other country was doing the same at that time, i.e., every other country that had anything to do with World War I. Maubourgne solved the ^{English} ~~British~~ cipher called Mayfair which had been the official British cipher for decades, maybe generations, and showed that it was breakable, solvable, and so the British had to change their system. Of course, they had been in the war awhile before we had and then while Fabyan was building up this cipher bureau and had got the higher-ups in Washington to agree that they didn't have anybody to decipher messages in Washington and Fabyan convinced them that he could, in no time flat, have an office full of people who could translate other languages and solve the ciphers which we learned as we did it. We didn't have any textbooks. There weren't any such things. We had to learn it by working the things out. Colonel Hitt and Major Maubourgne came out and worked with us for awhile, to see that we knew what we were doing and could be trusted to go on. Maubourgne had written up his solu-

4/1/75 Friedman

tion of the British Army cipher and that was printed and Colonel Hitt had published a manual of ciphers but very elementary ciphers and maybe a couple of dozen Army officers were sent to Fort Leavenworth for officer training and might have had access to those but nobody else had any. Nobody knew anything about. None of the department of government. From the first day of the war, we were put into the mill, grinding stuff out.

William F. Friedman was called upon, with his analytical mind and gift for languages and everything that was a natural attribute for a good cipher expert to take charge of the group. Fabyan got him translators and we translated and deciphers^d volumes, literally volumes of messages that passed between Germany and Mexico, for example. The reason Congress declared war was ~~the~~ the so-called Zimmerman message. Thousands of people know it by that name because it was the message that brought Congress to declare war and the Zimmerman message is this. ~~Germany sent the~~ German foreign minister^{sent} to the German ambassador in Mexico City a message saying, if you will join with us. I think they prefaced the body of the message by saying that the war wasn't going too well right then, that if Mexico would come in on the side of Germany in the war, after the war the German government would turn back to Mexico the three states that the U.S. States got from Mexico. And that's what set Congress off. And then when Wilson, our President then, saw that message he was just flattened out; he was so flabbergasted! He sent that right up to Congress. He'd been veryWilson, my recollection is though we couldn't pay too much attention to this general kind of thing, we were so busy on actual deciphering but nevertheless Wilson was having a hard time in Congress. He was trying to get Congress to get into the war but do it in a gentleman's way and it wasn't working very well but when Wilson sent up that message about Germany giving back three states of the United States to Mexico, Congress declared war the next day.

During that hectic first few months of the war the great plot of the Hindus and Germans against Great Britain was exposed, it came to our attention. Scotland Yard brought a series of letters that were probably two or three pages long and were passing between a Hindu prince, who was the head of the Hindu conspirators, Horamb~~ra~~ Lal Gutpa and there was another one that was a long name beginning with "C" but it was that name beginning with "C" that gave us our break in solving the cipher, because that name was in plain language. We had letters in that and worked backwards and got the whole series of messages out and there was another form.

4/1/75 Friedman

There were other systems of deciphering. I said that that one name had given us our breakthrough in one case. We could tell what was represented by the series of three figures. Every letter like on page 5 of some book, we wouldn't know what, the ...supposing three figures and a space, then three more figures and a space and this whole long letter would be made up like that. We figured as anybody would, this is not terribly difficult, that those three arithmetic figures meant a page, a line and a letter in a line and therefore this cipher was based on some book. Our problem was to get enough material so that we could locate the book. These messages were in English and this book.. we could tell..the conspirators were rather lazy in never changing, they were using the same group of three numbers appearing here and here and somewhere further along. We would compile a list of those things and on page 5-, I'll say the 11th line, and thirdly, the letter in that line. They were lazy so they didn't always make an absolutely new combination of three figures. They'd get started on something and we would build their code up. (What ideas did you have about the books to look for?) There were a number of words, maybe not many as somethings go, but we'd have maybe a dozen combination of those three numbers. We'd know that on such and such a page and such and such a line the word Constitution, and on another page the line that would be government and so we would know the subject matter was political science so we'd ask people all over the world for the thing and we'd everybody searching to find the book that would satisfy the requirements. It never turned up. Nobody ever got it. It was definitely a modern book.

There were something like 57 Hindus and Germans put on trial in Chicago for treason and we still hadn't found that book. And William F. Friedman was to testify at the trial. He went into Chicago one morning from Geneva and he was a little early for the court to convene and walking south on Clark Street in Chicago he went into the famous Clark Street Book Store, went up to the second floor to the collection of books on Political science, picked up the book! After Fabian had cabled all over the world and we had tried in every shop in this country, he just had a touch somehow, he had some luck.

The later trial had even more Hindus and Germans who had been arrested and brought there from prison. William F. Friedman was there for the trial. That was a cipher that gave a series of three numbers, it would be the page,

4/1/75 Friedman

and the next number would be either 1 or 2, indicating that there were two columns on a page, which would mean a dictionary. I don't remember why but we determined that it was not a current German/English dictionary. It was a dictionary of two volumes, we could tell that from the way the numbers were used. At least we theorized it was and you got words instead of letters. There were a hundred or so came to ^{trial} in San Francisco and we hadn't located this dictionary anywhere. We had done as Fabyan as done before, cabled all over the world, trying practically every book dealer in the United States, and so William F. Friedman kept on looking for this rather not recent German dictionary after he got to San Francisco. He looked everywhere, every book shop, every library, every source that he could think of but he couldn't find it. And then he went over to the University of California in Berkeley and went to the library but they didn't have it there. Then he ran into a professor of his at Cornell, ^{and another man.} They asked what in the world he was doing there. He told them and said they hadn't found anything. They said, have you tried the ~~Co-op~~ co-op? He said "no" so he went to the Co-op. There was an elderly man there and William F. Friedman described to him the book--he thought it was an old German dictionary, he didn't know whether it would be Vol. I. or Vol. II. And do you know that that man dug it up. There were piles and piles of books there, old dusty volumes that had been there for years, some tumbled over and it was through them that he paged around and found, I think it was an 1880 dictionary. And so twice William F. Friedman had the luck. Of course, to a very scientific mind the ciphers could appear to be absolutely un-^{be demonstrated}challengable but juries don't have scientific minds so we felt, and everybody who knew about the subject, felt that it was necessary to have the book that the jurymen would believe. And just as an aside, I could add that on that San Francisco trial, as he waited to be called and he was up in the balcony so that he could look down on the prisoners as they were brought in and seated together in a group and one morning a shot rang out as the police were settling these people and one of the Hindus was killed by another Hindu up in the balcony. We have run into people in Indiana who knew some of those conspirators, particularly the one who was shot. There was a policeman sitting right beside my husband when the shooting took place. It happened like that, as quick as a flash!

(How long did you do this--all through the war?) We carried on until January 1918. Then there began to be a lot more material and Washington felt it was taking too much time, too much space on the telegraph wires, the plan of work wasn't working fast enough, and so they established a Cipher Bureau here in Washington.

4/1/75 Friedman

This probably doesn't belong in the life of William F. Friedman was that the government asked for the whole staff at Riverbank and George Fabyan never told us about that. We had to find that out after the War's end.

(How did the Bureau start in Washington if they didn't have anybody who knew anything about it?) In January 1918 the small Cipher Bureau was established in Washington and H. O. Yardley who had had a small working staff of very few people. He was a telegraph operator in the War Dept. He was kind of interested in ciphers. They had gone through his hands and had learned a little bit about it so. I don't remember all the truth about the matter but Fabyan was told that what Washington wanted was for Fabyan to turn over his whole staff to Washington. Yardley organized the few men--I have a photograph of those men in that bureau--they were newspaper editors, college professors and only one of them knew anything about it. That was Prof. Manley of the Univ. of Chicago who did cryptography as a hobby. He helped to establish the bureau. Yard was the second in line and Manley was the Chief.

But Fabyan kept us working out at Riverbank. There was enough to do that we were kept busy. Then he got the brilliant idea of training Army officers overseas in cryptographic work and he had a class of about 80. Fabyan put them and us up in Aurora, Illinois, a nearby town where there was a hotel. that would hold that many people. We gave them six weeks training and then there were all set to go to France and take charge of cryptographic units. We did that for about two months and then Dr. Friedman insisted that he must get into the Army. He felt like a draft evader, he was embarrassed, and he learned a year or more after it had happened that Washington had tried to give him an Army commission, separate and distinct from anybody else. George Fabyan opened everybody's mail. It was common practice with him and my husband never knew, that he'd been offered a commission. He sort of kicked up a fuss and insisted that he wanted to go overseas. So he was sent to Camp Grant, that was up north somewhere for an examination and failed the examination. They said he had a heart murmur. We became suspicious that Fabyan would doctor the documents, whatever they were, which is exactly what happened. When we insisted on my husband having a thorough physical examination and not by an Army Board but by experts on the outside, they found nothing wrong. Mrs. Fabyan's sister was married to an Army officer and that Major Truitt or whatever his name was was at that camp where my husband was sent. He finally battled it out with Fabyan and got off for France. He was commissioned but only as a First Lieutenant, and that was Fabyan's doing. Yardley who was nothing but a

4/1/75 Friedman

telegraph operator with no college education and he started off as a Major. Here was the brilliant William F. Friedman sent off as a First Lieutenant.

He was in charge of the solution of codes, a section at GHQ AEF and then this man Childs who was one of the first young Army officers we had trained who had gone overseas--not in the big class of Army officers --but we had trained four officers previously which had been asked for specifically to go over to GHQ overseas. We had given them four months training, I think, about 16 hours a day. J. Reeve Childs who afterward became our ambassador here, there and ~~off~~ everywhere. Being in the group of only four individuals, they received a much more thorough training than those large classes which we trained afterwards. Childs was in charge of solving German ciphers, and my husband was in charge of the section solving German codes.

Typed 4/22/75--recorded about three weeks ago.

After World War I ended and everyone was hussling off for home, William S. Friedman received some orders which indicated that he should stay in France and write some history of the code section and the cipher section. In other words, although he occupied only half of the top places in charge and doing the work of the code section of the G H Q he was chosen to cover not only his half which was the code section but to cover the cipher section and any other miscellaneous activities that went on in the realm of codes and ciphers during the war. He was in Chaumont which is a little town --Gen. Pershing, I think, had chosen it.

When he got back in April of 1919 we discussed our future and both of us spoke quite firmly as well as frankly that we didn't want to go back to Riverbank. We were determined that we would not go back to Riverbank. We were sick and tired of Fabyan's scheming and dishonesty although he was generous and we lived rather luxuriously, at his expense. It just didn't go down to be treated like chattels. We were married after the war began in May 1917 while ^{we} were at Riverbank.

Everywhere that my husband went to talk about a job and the possibilities of the future because there were many things that had been brought into play during the war--modern machines and methods of doing certain types of work to help reach accomplishments sooner. He stayed in New York for a while and got appointments with various big companies with the idea of using some of the methods. Everybody said "But where has this been all these years?--here we have this wonderful science all opened up for us now and where has it been hiding?"

Fabyan apparently had us followed breath by breath because every time my husband kept an appointment with some superior officer in a company with the possibility of future developments kind of program that he was capable of developing and advisable so to do a telegram would come into this office from George Fabyan to William S. Friedman saying, invariably, almost the same words, "Come on back, your salary has been going on." That's the verbatim copy of the message that he cabled to my husband in France at the end of the war and from then on he dogged him and did everything he could to break down the possibility of my husband getting a job with somebody else. In the end we had to agree to have a meeting with him and he paid our expenses to Chicago and he came forth with his rosy ideas as usual but he did offer us a raise, I was to have a salary too, which not flattering was still a good living salary so we made certain conditions, finally agreeing on this, such as (1) we would not live on that estate, and (2) we would

have working hours like anybody else in any other business and (3) we would have our own car and would be free to roam wherever we pleased outside of working hours. Well, it all sounds fine and it was ~~made~~^{held} to us as much as any agreement with a man like George Fabyan could be held to. We rented a furnished house in a nearby town, Genever, Illinois. It was a sweet little cottage and we were really quite happy there. Our friends began to come from far away to visit us and we were making a fairly decent life for ourselves. But the same thing was true, the minute anything came forth or appeared in such a form that it could be recognized as an entity, well, nothing worked. Fabyan always came out ahead. and we always came out at the other end.

The Army kept hammering away at the proposition that they wanted--they wanted William S. Friedman. They offered him this job and that job, raising the amount of the salary each time that they would give and each time when we would go to Fabyan and tell him this had happened and the Army wanted William S. Friedman and would pay, e.g., \$5,000, Fabyan would interrupt and say "I'll give your \$10,000." He'd say he'd double it but, of course, he never did. This happened to us twice. Each time we'd say we'd say but never came a dollar more in salary at all. We went on for awhile and then another offer from the Army came and I said, the only way to get away from here to not let Fabyan know anything about it to go in the night, quietly, silently. My husband wouldn't quite agree to that, he thought was a little too cruel but we got everything packed, the things that were going to be shipped had been shipped, and we got dressed, hats, coats, down to the last degree of dressing, and then we went and faced Fabyan and said, "We are going."

We came to Washington on January 1, 1921. There was no ^{place} less in Washington to live, there was nothing, there was not such a thing as an unfurnished apartment in the ~~sity~~ of Washington--not if you crawled on your hands and knees over every inch of territory. We were in Washington exactly a year before an unfurnished apartment appeared in an advertisement! In the meantime we lived around here and there. One experience that we had wasn't too bad. We rented a studio (from Miss who had rented an apartment) on "S" Street, on a tiny triangle which faces on Conn. Avenue and has Florida Avenue on the other side. In this building, Huberts, the great French confectionary, on the first floor, on the second floor was this apartment, made out of a house. This apartment had two small bedrooms, a fireplace in one, a kitchen and a dinette, and a living room facing on Connecticut Avenue with a long window seat all the way across the room, and one grand piano and one upright piano and practically no furniture. It was barest place you've ever seen as far as furniture is concerned.

It had beds, a kitchen and a dinette, and a music room. So, we had a wonderful life there for a year. (We formed a music group. General Maubourgne played the violin and the cello but he played the violin in this, I guess you'd call it a quartet. I played the piano and one friend we had known in Geneva, Illinois of all the peculiar things that we'd run into her, was a cello player (she played in some orchestra) and another Army officer played another instrument. We used to have crowds below, on the street, when the windows were open listening. Well, that was great fun.) Finally, about the end of that year, (I read all the papers every day, for advertisements for a place to live) I finally saw an advertisement for the Argyle, Park Road and 17th Street, the end of the Mt. Pleasant car line and we moved in there. I'll always remember that apartment. It's the only apartment house I ever knew in the world that had fireplaces in all the apartments. It was built for an apartment house. These were wood-burning fireplaces. We had a foyer which was large enough to hold a full-sized grand piano and it did, a bedroom, a full kitchen and a pantry, a dining room and a glassed in porch and that is where, that brings me back to my husband again because that is where he did all his developing of everything that had to do with the minor, smaller inventions in the world of radio. He was very much interested in radio in those days. He could have made a great name for himself in radio.

During all this time, William S. Friedman was with the Signal Corps. of the Army which is the Communications Branch of the Army. He was with them all through the war and afterwards and never left them. Major General Maubourgne who became, well he was the person who got us to come to Washington. He was the persuader for that and he had off course known Fabyan and knew what sort of man he was. He had to be as skillful at covering^{up} as Fabyan himself in order to get the proper thing accomplished, and Maubourgne was pretty good at that himself. He was an inventor, he was an extraordinary person. He was a painter, he took prizes at Art Shows in San Francisco and Chicago. He played the cello that would ring your heart out. He invented methods of communication, actually physical things that had to do with development of radio. He was very well known, he was quite a celebrated person.

The office where William Friedman worked, at that time, was in some temporary buildings on Constitution Avenue. I only stayed in the Army for a year, i.e. connected with the Army only a year after ~~the war~~^{we came to Wash.}. Yes, we built Army codes that year sweeping all the debris, possibly the compromised ciphers that had been used during the war, and replaced them with new methods. We worked in a temporary building that was in addition to the big Munitions Building. There was more than one smallish temporary building and we were in that for

that year. After that Dr. Friedman was in the Munitions Building as long as it existed.

In 1923 the Navy got in a tangle in their communications system section and they tried to get somebody to do sort-of a critical job of revising or deciding whether the Navy's communication system should be revised or not. They had trouble getting somebody competent to do that so they ended up sitting on my door step and exploring me to take that job. So I stayed with the Navy about five months. But, we weren't getting anywhere and I didn't think anything was necessary beyond ^{righting} ~~fixing~~ some small things that were to be done with the system that they had.

It was 1924, late 1924 when I began to work with Captain Root, who was an Intelligence Officer of the Coast Guard who had become very much interested in the rum running between the Bahamas and Florida. We had prohibition ~~law~~ amendment from 1919 on. The whole half of the world, this hemisphere, was interested in thwarting the prohibition law. Mr. Ansiger was a Consul, a United States Consul in Nassau at the time. and he got to a point where he used to come inall these people were after my husband and when they couldn't get my husband they thought they'd get somebody who could comb his brain so they'd hire me. So, I made the condition that I wouldn't work in an office. If I could take the stuff home and work on it, all right! So, I did, This was with Capt. Root on the Coast Guard. He got the first reports from all the Coast Guard officers, fight the rum runners or try to capture the rum runner or drive them off or whatever.

This has to do with William F. Friedman only because all these people with all these various interests were after him to work for them and carry forward whatever their particular project was at the moment and when they couldn't get him they would slyly, I think, plan to get me to work for them and then they'd get the use of his brains, and work it that way. So, that's what they did on the whole.

Well, I sort-of floated around. I didn't belong to any particular office or to any particular officer or chief and it just seemed that I went here, there and everywhere where I was needed. I believe I had the title of Special Agent and I got paid according to that title. And of course, we always enjoyed doing together the work of the rum runners and the smugglers because there were a lot of funny things. We got fun out of that. These were such simple things compared to the enormously complex things that Empires like Great Britain and the United States, that he was working on during the day. It was quite a relief. I remember when I came home from a League of Women Voters meeting and I said "What's going on, is anything

happening?" and he said, "Yes" and he laughed and he said "Andrew needs a new glass eye" and I said "What in the world do you mean by that?" Well, it seems that a system that I'd been working on passing between Vancouver, ~~and~~ British Columbia on the West Coast with the big ships out ~~at~~ at sea that carried the illicit liquor and that message had gone out in cipher to the captain of this large ship and said inform Andrew his wife has just had twins. And the message came back. Sorry, Andrew has no wife. There were all kinds of funny messages, like send the new glass eye and when some man needed new shoes, the Capt. sent the message in code saying send Andrew new boots, size 18. Those rum runners were well trained. There was some former British code and cipher expert, some former British naval officer.

Dr. Friedman always worked with the Army, even after he became sick. He spent about four months, I think,

Gen.

→ One day ~~Capt.~~ Mourbournne had called him into his office and said I want you to drop everything and take charge of this group that is working on the Japanese diplomatic cipher system. They aren't getting anywhere. You drop everything and take care of it. It's the only time that my husband ever mentioned to me anything that could have been tied to the Purple Cipher, at least the system that was later to be known as the Purple Congress, i.e., when the investigation in Congress went on, that name was given for it. This was to do with the Japanese deciphering the war, World War II. This was something I figured out myself, though I can't prove it, but by putting two and two together, I could tell that they were reading the messages passing between Japan and Germany on a diplomatic channel which was the overall everything-- then they knew everything. They had diplomatic code, they knew everything that was being planned, with Germany and everywhere else, and I know that either somebody said or I saw in writing somewhere. How, I don't remember, but what I do remember. They had been reading messages in that Purple Code for a year and a half before Pearl Harbor. And I do know, and this has come out in other books, a lot of people have written about this, Japan had sent a message through diplomatic channels to all their commands all over the world in which they stated that they were prepared and ready and that the diplomat, of whatever rank was receiving this message in whatever foreign country like Washington, right here, in the Japanese Embassy, that they would receive a special message when the Japanese were ready to attack and this message would say East Wind Rain, this was a little tansy, weensy code that the Japanese had developed, that would

mean that they were going to attack the United States. This was a code within a code. If they said North Wind Cloudy, I think this would mean that they were going to attack Singapore. And they had everything set out like that, and these were all weather messages. Whatever Japan decided to do, this code within a code would be transmitted along with the weather messages but they didn't say what United States territory would be attacked. People are always asking if we were reading the ciphers why in the world was Pearl Harbor attacked. They had never mentioned Pearl Harbor. They had never mentioned any particular part of the United States. And there were all sorts of speculation here in Washington, I remember, years afterward the offices in the Army and the Navy, the Air Force and lots of other people I guess too were speculating and speculating and figuring and figuring and trying to fit the pieces together trying to decide where Japan was going to attack. But she never said. There was nothing about dates, to their Japanese officers as well. When Pearl Harbor was attacked, Dr. Friedman and his group were called back to work. We're ahead of Japan by 13 hours. I remember that some of the officers had left the office on Saturday at noon, and there were things that happened (I couldn't possibly recall now what they were) that increased the tension to a point that everybody was put to work and they slept in uniforms from, I guess, Saturday until Tuesday. There were so many things piling up on each other that it's hard to remember what is what. Dr. Friedman was head of the group when you consider that they didn't even know when they started working with those cipher messages that it was a machine cipher. They didn't even know that. There's all the difference in the world between machine cipher and paper cipher. Machine cipher can go into hundreds and billions of computations. You can start from here and go to the end of the world and never have a repetition and repetitions are what, if you're working with pencil and paper and your brain alone you've got to depend on finding repetitions. And the Japanese had a machine cipher. All the countries of the world were trying to develop something that nobody else could read and make sense out of. They were all playing with machines and the Germans for years before the war had been using a machine called the enigma. It was a very complicated machine with a lot of different parts and ~~and~~ the machines would be built with one arrangement of parts to be used between Germany and Chile and another arrangement of parts to be used between diplomatic offices in Germany and Mexico. Japan had a different form of that machine made for them. At any rate it had been given to the Japanese by the Germans. But it was different with every

country, they just changed certain wheels or discs or parts of the machine. They even had a less superior enigma machine that was ~~just~~ used by Germany and her confidential agents--her spies, and that's what I did! The spy stuff! Eva Peron was a German agent. She wasn't the only one but she used a South American station that was in Chile, I think.

I think in 1930 I was given an office and hired young people to train and all that kind of thing. But this doesn't have anything to do with the Japanese cipher German spies used the machine too but that was that.

Jan 22, 1975 months
Typed 4/22/75--recorded about three weeks ago.

R Clark Joseph
read

After World War I ended and everyone was hussling off for home, William F. Friedman received some orders which indicated that he should stay in France and write ~~the~~ ^{some} history of the code section and the cipher section. In other words, although he occupied only half of the top places in charge and doing the work of the code section ~~of the~~ ^{at G.H.Q.} he was chosen to cover not only his half which was the code section but to cover the cipher section and any other miscellaneous activities that went on in the realm of codes and ciphers during the war. He was in Chaumont which is a little town -- Gen. Pershing, I think, had chosen it ~~as the Headquarters~~ ^{as the Headquarters, or G.H.Q.}

Friedman

When ~~he~~ ^{we} got back in April of 1919, we discussed our future and both of us spoke quite firmly as well as frankly that we didn't want to go back to Riverbank. We were determined that we would ~~not~~ go back to Riverbank. We were sick and tired of Fabyan's scheming and dishonesty although he was generous and we lived ~~rather~~ ^{rather} luxuriously, at his expense. It just didn't go down ^{with us,} to be treated like chattels. (We were married after the war began in May 1917 while ^{we} were at Riverbank).

^{after April 1st, when W.F.F. returned from France and we were job-hunting in the Eastern U.S.}
Everywhere that my husband went to talk about a job and the possibilities of the future because there were many things that had been brought into play during the war--modern machines and methods of doing certain types of work to help reach accomplishments sooner. He stayed in New York for a while and got ~~an~~ appointments with various big companies with the idea of using some of the methods. Everybody said "But where has this been all these years?--here we have this wonderful science all opened up for us now and where has it been hiding?"

Fabyan apparently had us followed breath by breath because every time my husband kept an appointment with some superior officer in a company with the possibility of future developments kind of program that he was capable of developing and advisable so to do, a telegram would come into this ^{particular} office from George Fabyan to William F. Friedman saying, invariably, almost the same words, "Come on back, your salary has been going on." That's the verbatim copy of the message that he cabled to my husband in France, at the end of the war ^{in November} and from then on he dogged him and did everything he could to break down the possibility of my husband getting a job with somebody else. In the end we had to agree to have a meeting with him and he paid our expenses to Chicago ^{where} and he came forth with his rosy ideas as usual, but he did offer us a raise. I was to have a salary too, which ^{although} not flattering was still a good living salary, so we made certain conditions, finally agreeing on this, such as (1) we would not live on that estate, and (2) we would

have working hours like anybody else in any other business and (3) we would have our own car and would be free to roam wherever we pleased outside of working hours. Well, it all sounds fine and it was ~~xxx~~^{held} to ~~us~~ as much as any agreement with a man like George Fabyan could be held to. We rented a furnished house in a nearby town, Genever, Illinois. It was a sweet little cottage and we were really quite happy there. Our friends began to come from far away to visit us and we were making a fairly decent life for ourselves. But the same thing was true, the minute anything came forth or appeared in such a form that it could be recognized as an entity, well, nothing worked. Fabyan always came out ahead. ~~A~~ and we always came out at the other end.

The Army kept hammering away at the proposition that they wanted--they wanted William F. Friedman. "They" offered him ~~this~~^{for} job and that job, raising the amount of the salary each time that they would give and each time when we would go to Fabyan and tell him this had happened and the Army wanted William F. Friedman and would pay, ~~for example~~^{for example}, \$5,000, Fabyan would interrupt and say "I'll give you \$10,000." He'd say he'd double it but, of course, he never did. This happened to us twice. Each time we'd say we'd say, ~~but~~^{there} there never came a dollar more in salary at all. We went on for awhile and then another offer from the Army came and I said, the only way to get away from here ~~to not~~^{is to} let Fabyan know anything about it, to go in the night, quietly, silently. My husband wouldn't quite agree to that, he thought was a little too cruel, but we got everything packed, the things that were going to be shipped had been shipped, and we got dressed, hats, coats, down to the last degree of dressing, ~~for travel~~^{for travel}, and then we went and faced Fabyan and said, "We are going."

We came to Washington on January 1, 1921. There was no ~~less~~^{place} in Washington to live, there was nothing, there was not such a thing as an unfurnished apartment in the ~~city~~^{whole} of Washington--not if you crawled on your hands and knees over every inch of territory. We were in Washington exactly a year before an unfurnished apartment appeared in an advertisement! In the meantime we lived around here and there. One experience that we had wasn't too bad. We rented a studio from ~~Miss~~^a Music Teacher who had rented an apartment on "S" Street, on a tiny triangle which faces on Conn. Avenue and has Florida Avenue on the other side. In this building, Hubert's, the great French confectionary, on the first floor, on the second floor was this apartment, ~~all~~^a made out of a house. This apartment had ~~two~~^a small bedroom, a fireplace ~~in one~~^{all}, a kitchen and a dinette, and a living room facing on Connecticut Avenue with a long window seat all the way across the room, and one grand piano and one upright piano and practically no furniture. It was barest place you've ever seen as far as furniture is concerned.

4/22/ p-3

It had beds, a kitchen and a dinette, and a music room. So, we had a wonderful life there for a year. We formed a music group. General Maubourgne played the violin and the cello but he played the violin in this, I guess you'd call it, a quartet. I played the piano and one friend we had known in Geneva, Illinois, (of all ~~the~~ peculiar things, ^{it} ~~that~~ ^{accidentally} we'd run into her) was a cello player (she played in some orchestra) and another Army officer played another instrument. We used to have crowds below, on the street, when the windows were open, listening. Well, that was great fun. Finally, about the end of that year, (I read all the papers every day, for advertisements for a place to live) I finally saw an advertisement for the Argyle, ^{an apartment at corner of} Park Road and 17th Street, (the end of the Mt. Pleasant car line) and we moved in there. I'll always remember that apartment. It's the only apartment house I ~~ever~~ ^{nevertheless} knew in ~~the world~~ that had fireplaces in all the apartments. It was built for an apartment house. These were wood-burning fireplaces. We had a foyer which was large enough to hold a full-sized grand piano and ^{we obliged} it did, a bedroom, a full kitchen and a pantry, a dining room and a glassed in porch, and that is where, that brings me back to my husband again because that is where he did all his developing of everything that had to do with the minor, smaller inventions in the world of radio. He was very much interested in radio in those days. He could have made a great name for himself in radio. ^{even then} ~~even then~~ ^{getting farther and farther into it.}

During all this time, William ~~F.~~ Friedman was with the Signal Corps. of the Army which is the Communications Branch of the Army. He was with them all through the war and afterwards and never left them. Major General Maubourgne who became, well he was the person who got us to come to Washington. He was the persuader for that and he had of course known Fabyan and knew what sort of man ~~he~~ was. He had to be as skillful at covering ^{up} as Fabyan himself in order to get the proper thing accomplished, and Maubourgne was pretty good at that himself. He was an inventor, he was an extraordinary person. He was a painter, he took prizes at Art Shows in San Francisco and Chicago. He played the cello ^{so} ~~that~~ ^{fit} ~~would~~ ^W ring your heart out. He invented methods of communication, actually physical things that had to do with development of radio. He was very well known, he was quite a celebrated person.

The office where William Friedman worked, at that time, was in some temporary buildings on Constitution Avenue. I only stayed ^{with} ~~in~~ the Army for a year, i.e. ~~connected with the Army only a year after the war.~~ ^{we came to Wash.} Yes, we built Army codes that year, sweeping ^{up} all the debris, possibly the compromised ciphers that had been used during the war, and replaced ~~them~~ with new methods. We worked in a temporary building that was ^{an} ~~in~~ addition to the big Munitions Building. There was more than one smallish temporary building and we were in that for

that year. After that ~~Mr.~~ Friedman was in the Munitions Building as long as it existed.

M
i
T

Check

In 1923 the Navy got in a tangle in their communications system section and they tried to get somebody to do sort-of a critical job of revising or deciding whether the Navy's communication system should be revised or not. They had trouble getting somebody competent to do that so they ended up sitting on my door step and ~~exploring~~ ^{righting} me to take that job. So I ~~stayed~~ ^{worked} with the Navy about five months. But, we weren't getting anywhere and I didn't think anything was necessary beyond ~~fixing~~ some small things that were to be done with the system that they had.

It was 1924, ~~late 1924~~ when I began to work with Captain Root, who was an Intelligence Officer of the Coast Guard who had become very much interested in the rum running between the Bahamas and Florida. ^{U.S.} We had ^{the} prohibition ~~then~~ amendment from 1919 on. The whole half of the world, this hemisphere, was interested in thwarting the prohibition law. Mr. Ansiger was a Consul, a United States Consul in Nausau at the time. and he got to a point where he used to come inall these people were after my husband and when they couldn't get my husband they thought they'd get somebody who could comb his brain so they'd hire me. So, I made the condition that I wouldn't work in an office. If I could take the stuff home and work on it, all right. So, I did, This was with Capt. Root on the Coast Guard. He got the first reports from all the Coast Guard officers, fight the rum runners or try to capture the rum runner or drive them off or whatever.

This has to do with William F. Friedman only because all these people with all these various interests were after him to work for them and carry forward whatever their particular project was at the moment and when they couldn't get him they would slyly, I think, plan to get me to work for them and then they'd get the use of his brains, and work it that way. So, that's what they did on the whole.

Well, I sort-of floated around. I didn't belong to any particular office or to any particular officer or chief and it just seemed that I went here, there and everywhere where I was needed. I ^{recall} believe I had the title of Special Agent and I got paid according to that title. And of course, we always enjoyed doing together the work of the rum runners and the smugglers because there were a lot of ^{amusing} ~~funny~~ things. We got fun out of that. These were such simple things compared to the enormously complex things that Empires like Great Britain and the United States, ^{which} ~~that~~ he was working on during the day. It was quite a relief. I remember ^{once} when I came home from a League of Women Voters ^{evening} ~~meeting~~ and I said "What's going on, is anything

As happened several times, some organization or company, or some branch of government, would try to hire a difficult man and when defeated in that plan, they would then try to get me (subliminally)

My brain record-book, as it were

happening?" and he said, "Yes" and he laughed and he said "Andrew needs a new glass eye" and I said "What in the world do you mean by that?" Well, it seems that a system that I'd been working on passing between Vancouver, ~~and~~ British Columbia on the West Coast with the big ships out ~~at~~ at sea that carried the illicit liquor and that message had gone out in cipher to the captain of this large ship and said "inform Andrew his wife has just had twins." And the message came back. "Sorry, Andrew has no wife." There were all kinds of funny messages, ^{such as these} like send the new glass eye and when some man needed new shoes, the Capt. sent the message in code saying send Andrew new boots, size 18. Those rum runners were well trained. There was some former British code and cipher expert, some former British naval officer, *who devised their systems for them* *but peeping in close touch* *even after he became sick.* Dr. Friedman always worked with the Army. ~~He spent about four months, I think,~~ *but kept in very close touch with Admiral Wanger in the Navy.* Gen. ^{av} ~~Maubourgne~~ had called him into his office and said "I want you to drop everything and take charge of this group that is working on the Japanese diplomatic cipher system. They aren't getting anywhere. You drop everything and take care of it." It's the only time that my husband ever mentioned to me anything that could have been tied to the Purple Cipher, ~~at least~~ (the system that was later to be known as the Purple Congress, i.e., when the investigation in Congress went on, that name was given ^{to} for it. This was to do with the Japanese ~~deciphering~~ the war, World War II. This was something I figured out myself, though I can't prove it, but by putting two and two together, I could tell that they were reading the messages passing between Japan and Germany on a diplomatic channel which was the overall everything-- then they knew everything. They had diplomatic code, they knew everything that was being planned, with Germany and everywhere else, and I know that either somebody said or I saw in writing somewhere. How, I don't remember, but what ^{about} I do remember. They had been reading messages in that Purple Code for ^a year and a half before Pearl Harbor. And I do know, and this has come out in ^{several} ~~other~~ books, a lot of people have written about this, Japan had sent a message through diplomatic channels to all their commands all over the world in which they stated that they were prepared and ready and that the diplomat, of whatever rank was receiving this message in whatever foreign country like Washington, right here, in the Japanese Embassy, that they would receive a special message when the Japanese were ready to attack and this message would say East Wind Rain, this was a little teensy, weensy code that the Japanese had developed, that would

with Naval Communication

4/22/ P-6

mean that they were going to attack the United States. This was a code within a code. If they said North Wind Cloudy, I think this would mean that they were going to attack Singapore. And they had everything set out like that. and these were all weather messages. Whatever Japan decided to do, this code-within-a-code would be transmitted along with the weather messages but they didn't say what "United States territory" would be attacked. People are always asking "if we were reading the ciphers why in the world was Pearl Harbor attacked?" They ^{Japanese} had never mentioned Pearl Harbor. They had never mentioned any particular part of the United States ^{just "U.S. territory"}. And there were all sorts of speculation here in Washington, I remember, years afterward the officers in the Army and the Navy, the Air Force and lots of other people I guess too, were speculating and speculating and figuring and figuring and trying to fit the pieces together trying to decide where Japan was going to attack. But she never said. There was nothing about dates, to their Japanese officers ^{either} as well. When Pearl Harbor was attacked, ^{that December week-end} Dr. Friedman ^{was} and his group were called back to work. ^{was} We're ahead of Japan by 13 hours. I remember that some of the officers had left the office on Saturday at noon, and there were things that happened (I couldn't possibly recall now what they were) that increased ^(if any) the tension to a point that everybody was put ^{back} to work and they slept in uniforms from, I guess, Saturday until Tuesday. There were so many things piling up on each other that its hard to remember what is what. Dr. Friedman was head of the group ^{when you consider that} they didn't even know when they started working with those cipher messages that it was a machine cipher. They didn't even know that. There's all the difference in the world between machine cipher and paper cipher. Machine cipher can go into hundreds and billions of computations. You can start from here and go to the end of the world and never have a repetition and repetitions are what, if you're working with pencil and paper and your brain alone you've got to depend on finding repetitions. And the Japanese had a machine cipher. All the countries of the world were trying to develop something that nobody else could read and make sense out of. They were all playing with machines and the Germans for years before the war had been using a machine called the Enigma. It was a very complicated machine with a lot of different parts and ~~and~~ the machines would be built with one arrangement of parts to be used between Germany and Chile and another arrangement of parts to be used between diplomatic offices in Germany and Mexico. ^{and the like} Japan had a different form of that machine made for them. At any rate it had been given to the Japanese by the Germans. But it was different with every

4/22 p-7

country, they just changed certain wheels or discs or parts of the machine. They even had a less superior Enigma machine that was ~~just~~ used ~~by~~ Germany and her confidential agents--her spies, ~~and that's what I did~~ ^{omit} The spy stuff. Eva Peron was a German agent. She wasn't the only one ^{by any means,} but she used a South American station ^{It} ~~that~~ was in Chile, ~~I think.~~ ^{if I recall correctly}

^{it was} I think ~~in~~ 1930 I was given an office and hired young people to train and all that kind of thing. But this doesn't have anything to do with the Japanese cipher. ^{Diplomatic} German spies used ^{used a} ~~the~~ machine too but that was ^{a different} ~~that~~. ^{Or perhaps I should say "a different version" of the engine} 1930? No. Earlier I had been officially appointed to a professional grade called Chief Cryptanalyst with a group of young people all college graduates who had been mathematics or physics majors. Physically we were placed as a Treasury Dept. unit, the Coastguard. (In wartime the Coastguard becomes a part of the Navy, no longer a Treasury Dept. branch) So my office was moved bodily in toto to the Navy Department at Nebraska Ave (intersection at Ward Circle with Massachusetts Avenue) and there a Coastguard officer was our "leader". The move took place in 1943. I lived out the war in that "temporary building" where the temperature in summer rose to unbearable heights -- one day I recall, it rose to 114°. But we were not dismissed! "This is wartime, remember?"